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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,481	06/04/2001	Stefan Schaffler	P01,0147	4787

7590 11/06/2002
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EXAMINER
SUN, XIUQUIN

ART UNIT 2863
PAPER NUMBER

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
09/857,481	SCHAFFLER ET AL.	
Examiner	Art Unit	
Xiuqin Sun	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 11, 14-17 and 20 is/are rejected.
- 7) Claim(s) 12, 13, 18 and 19 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) Other:

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DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

2. As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a)

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and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 14-17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guiver et al. (U.S. Pat. No. 5809490).

Guiver et al. teach a method and system for reducing a number of measured values for modeling a technical process of an engineering plant (see abstract; col. 1, lines 12-40; col. 2, lines 44-50 and Fig. 2), comprising the steps and means of: a) measuring an initial set of empirical values at various steps of a technical process using sensors while said technical process is operating based on a predetermined set of parameters (col. 3, lines 38-65 and col. 4, lines 13-26); b) screening out a set of empirical values from the initial set of empirical values for reducing a size of the initial set of empirical values to obtain a screened set of empirical values (see Figs. 2-6) by: assessing each value in the initial set of empirical values with respect to a predefined first threshold value to determine whether it should be put into one of the associated classes or be screened out (see Figs. 3, 5; col. 2, lines 30-39; col. 5, lines 1-22; col. 7, lines 27-67; col. 8,

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lines 1-22; col. 9, lines 54-63; col. 10, lines 30-32, lines 43-46 and lines 55-60), further assessing each class with respect to a predefined second threshold value, if a result of said assessing step lies below the second predefined threshold value, then, screening out said class (see Figs. 2-3; col.5, lines 30-42 and col. 6, lines 5-63); c) and modeling said technical process using said screened set of empirical values (col.2, lines 44-50; col. 5, lines 43-50; col. 11, lines 41-49 and col. 12, lines 44-63). The teachings of Guiver et al. further include the steps of: reducing a number of empirical values in a class by selecting a representative empirical value for the class (col. 2, lines 34-40 and col. 5, lines 3-12), wherein the representative empirical value is an average of the empirical values in the class (col. 5, lines 3-7), one of a maximum value and a minimum value of the empirical values in the class (col. 5, lines 3-7), and a median of the empirical values in the class (col. 5, lines 3-7).

The teaching of Guiver et al., in regard to step b) recited above, does not mention explicitly the steps of: dividing the initial set of empirical values into classes based on a predefined criteria; and assessing each empirical value in each class with respect to a predefined first threshold value, and if a result of said assessing step lies below said predefined first threshold value, then screening out said empirical value.

It is however deemed that the teaching given by Guiver et al. includes or suggests the steps of assessing each value in the initial set of the empirical values and dividing the initial set of empirical values into sub sets. It would have been obvious to one having ordinary skill in the art at the time the invention was

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made to separate the two steps in order to make the clustering procedure more efficient.

Allowable Subject Matter

5. Claims 12-13 and 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance:

Dependent claims 12-13 and 18-19 contain allowable subject matter.

In regard to claim 12, prior art fail to teach the claimed dependence of the predefined criteria used for dividing the initial set of empirical values into classes on the said predetermined first set of parameters.

It is this limitation as it is claimed in the combination, which has not been found, taught or suggested in the prior art of record, that makes these claims allowable over the prior art.

In regard to claim 13, prior art fail to teach the claimed steps of: determining an empirical value associated with a transient phase of the technical process resulting from a modification of the predetermined set of parameters; and screening out the empirical value associated with the transient phase.

It is this limitation as it is claimed in the combination, which has not been found, taught or suggested in the prior art of record, that makes these claims allowable over the prior art.

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In regard to claim 18, prior art fail to teach the claimed step of: screening out a class with fewer number of empirical values than a predefined number.

It is this limitation as it is claimed in the combination, which has not been found, taught or suggested in the prior art of record, that makes these claims allowable over the prior art.

In regard to claim 19, prior art fail to teach that the result of said assessing step is a difference of the empirical value in the class with the predefined first threshold value.

It is this limitation as it is claimed in the combination, which has not been found, taught or suggested in the prior art of record, that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (703)305-3467. The examiner can normally be reached on 7:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (703)308-3126. The fax phone numbers for the organization where this application or proceeding is

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-assigned are (703)308-5841 for regular communications and (703)308-5841 for
After Final communications.

Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the receptionist whose telephone number is
(703)308-0956.

XS

XS

October 23, 2002


John Barlow
Supervisory Patent Examiner
Technology Center 2800